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Measure Information Template

California Building Energy Efficiency Standards
Revisions for July 2003 Adoption

NAIMA Proposed Measure:

Revise the requirements for low-rise Residential alterations

November 5, 2001

Description

Approximately 7.6 million homes exist statewide and about 5.3 million were built prior the CEC energy efficiency requirements initiated in 1978. Sales of existing homes are 5 times greater than for new homes, and at least 70% of the existing housing stock is at least 30 years old. Many of these homes are being renovated daily, yet the standards only require them to meet the minimum mandatory measures. It is only prudent to ensure adequate efficiency measures are installed at the time an alteration is occurring. The requirements for alterations should be consistent with the requirements for new buildings, or alternatively a separate set of required measures should be developed, possibly based on house vintage to better capture effected measures for a building undergoing an alteration.

Our proposal suggests ways to capture the large potential energy savings available at the time alterations are made to existing residential buildings.

Benefits

Energy use in existing homes has a huge impact on state energy resources, but existing homes have been all but ignored in the numerous changes to the California Building Energy Efficiency Standards. The CEC's first standards became effective in 1978, but it wasn't until about 1982 that the current compliance methods have been in use. Since 1982, approximately 1.9 million new homes have been constructed, yet 9.5 million existing residential homes were sold in the marketplace. Assuming reasonable energy efficiency

improvements are made to existing residential buidings enough total energy can be saved to provide the equivalent power to heat and cool approximately 1.3 to nearly 4 million homes.[1]

Environmental Impact

The proposed measure has no potential adverse environmental impacts. The products affected are already in use and widely accepted.

Type of Change

We have not determined the exact nature of the language required to implement this proposal; however one possible means is to modify Section 152(b)1 as follows (new language underlined):

> **Prescriptive approach**. The altered component and any newly installed equipment serving the alteration shall meet the applicable requirements of Sections 110 through 118 and 150 through 151 …
>
> Delete the remainder of 152(b)1.

Measure Availability and Cost

This measure will require no new products, technologies, design strategies or installation techniques.

Useful Life, Persistence and Maintenance

The same criteria that justify these measures for new construction apply for alterations.

Performance Verification

No new tools or methods are required to ensure or verify performance of the proposed measure.

Cost Effectiveness

Applying the same energy requirements to alterations as to new construction will be even more cost-effective, since the existing conditions are usually far lower than Title 24 levels.

Analysis Tools

No new tools are required to quantify energy savings and peak electricity demand reductions – the current reference method is adequate.

Relationship to Other Measures

The proposed measure will have no impact on other mandatory measures or on current prescriptive packages.

Bibliography and Other Research

[1]INFORMATION SUPPORTING CALIFORNIA LEGISLATION AB 1574—INCREASING THE EFFICIENCY OF EXISTIING RESIDENTIAL BUILDNGS; David W. Ware, October 24, 2001.

"AB1574 Final Talking Points-approved bill.c